Aerial Detection Survey, Pacific Southwest Region
Far Southern Sierra Nevada Range of California, October 2018

Preliminary Summary
(numbers may change)
Area surveyed: 6.5 million acres
Acres with mortality: 740,105 acres

Objective: The objective of this survey is to detect and record recently dead and damaged trees. Most of the mortality and damage is caused by insects and diseases.

Surveyors: J. Moore, L. McAfee, J. Pope

Methodology: Recent tree mortality is visually surveyed and documented using Digital Mobile Sketch Mapping Systems. Surveyors draw polygons or affix points (not included in this report) and annotate percent of forested area affected along with damage type, tree species, and causal agent. The five-class rating system is: Very Light (1-3%), Light (4-10%), Moderate (11-30%), Severe (31-50%), and Very Severe (<50%). Multiple hosts are sometimes killed in the same area and this preliminary report assigns only the primary host affected.

Survey Highlights:

This report summarizes preliminary findings in and around the Eldorado, Stanislaus, Sierra and Sequoia National Forests, Yosemite and Kings Canyon/ Sequoia National Parks and surrounding areas.

- California red and white fir mortality were the most common host types affected and concentrated in higher elevations especially within wilderness areas of the Sierra National Forest.
- Ongoing Jeffrey and ponderosa pine mortality was also common in high elevation mixed-conifer ecotypes but at lower intensities.
- Lodgepole pine mortality was mostly concentrated in north central Sierra National Forest and southern Yosemite National Park.
- Five-needle pine mortality included high elevation limber and western white pine and occurred along the far eastern edge of the Sierra National Forest.

Tree Species Affected	Acres with Mortality
California red and white fir	618,342
Jeffrey and ponderosa pine	103,085
Lodgepole pine	9,481
Five needle pine	6,724
Live oak	2,170
Singleleaf pinyon pine	303
Total	740,105

California red fir mortality was common at high altitudes such as this area west of Silver Peak on the Sierra National Forest.

Ongoing mostly fir mortality west of Madera Peak on the Sierra National Forest.

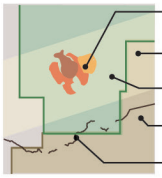
Please direct questions pertaining to this report to Jeffrey Moore
jwmoore02@fs.fed.us | 530.759.1753 | Report date: October 19, 2018

USDA

UNITED STATES DEPARTMENT OF AGRICULTURE

FOREST HEALTH PROTECTION
AERIAL DETECTION MONITORING

2018 SURVEY
Western South Sierras



Tree mortality
Surveyed Area*
National Forest
National Park
County boundary

* This map depicts tree mortality **only** within the surveyed area.

LAKE TAHOE BASIN
South Lake Tahoe
ELDORADO
Placerville
ACRAMENTO
STANISLAUS
Sonora
YOSEMITE
INYO
Bishop
SIERRA
INYO
SEQUOIA-
KINGS
CANYON
DEATH
VALLEY
Clovis
Fresno
Porterville
SEQUOIA
Bakersfield

80 395 50 99 120 152 5 101 58

Percent Trees Affected

- Very Light (1-3%)
- Light (4-10%)
- Moderate (11-29%)
- Severe (30-50%)
- Very Severe (>50%)

Map only depicts dead trees surveyed in 2018.
Areas of tree mortality are for visualization purposes only.

FOREST SERVICE

https://www.fs.usda.gov/detail/r5/forest-grasslandhealth/?cid=fsbdev3_046696